Chandan Achary

2nd Year Undergraduate

Department of Chemical Engineering, IIT Kanpur

Email : achandan23@iitk.ac.in / acharychandan2005@gmail.com

GitHub: ⬡ Adventurist2   **Phone :** +91-8917555021

Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2023 - Present	B.Tech (Expected Graduation: 2027)	Indian Institute of Technology, Kanpur	7.93/10
2023	CBSE (XII)	Central Public School, Kota	93.2%
2021	ICSE (X)	St. Vincent's Convent School, Berhampur	99.4%

Scholastic Achievements

- Secured **All India Rank 4155** in **JEE Advanced 2023** among the 1.9 lakh shortlisted candidates.
- Among the top 0.4% of the 1.5 million applicants who appeared in JEE Main 2023.

Key Projects

- **Voice Morph Companion: Electronics Club, IIT Kanpur** ⬡   *(May'24 - Sep'24)*
  - Developed an **AI-powered smart mirror system** integrating real-time voice commands, gesture control, and home automation.
  - Designed and deployed **lightweight NLP models** for intent recognition and dynamic task execution on Raspberry Pi, achieving real-time responses with minimal latency.
  - Coordinated **multimodal input processing** by combining audio, gesture, and visual data, ensuring context-aware responses for personalized interactions.
  - Worked extensively with **PyTorch and OpenCV** to implement and optimize models for low-power edge devices.

- **Full-Stack Project: To-Do Web Application (Self-Project)** ⬡   *(Oct'24)*
  - Developed a modern **to-do application** with React, Tailwind CSS, and Vite for an optimized, responsive UI.
  - Integrated **MongoDB** with Mongoose to handle backend data, and built RESTful APIs for task creation, updating, and deletion.
  - Implemented user authentication with **JWT (JSON Web Tokens)** for secure login and registration. This allows users to sign up, log in, and maintain authenticated sessions, ensuring only authorized access to personal to-do lists.

- **Huffman Highway: ACA Project, IIT Kanpur** ⬡   *(May'24 - Aug'24)*
  - Implemented **Huffman encoding/decoding** algorithms for text and image compression, showcasing a strong grasp of data compression techniques.
  - Designed and solved shortest path problems using **Dijkstra's and A* algorithms** for navigation on IIT Kanpur's campus map.
  - Leveraged advanced **data structures** like heaps and binary trees to improve computational efficiency in algorithmic implementations.

- **Google Gemini Clone (Self-Project)** ⬡   *(Sep'24)*
  - Built a **Google Gemini clone** using React, focusing on responsive design and user experience.
  - Used **Context API** for state management to ensure smooth data flow across the application.
  - Implemented key **API calls** to replicate the core functionality of the Google Gemini platform, ensuring dynamic content updates.

Technical Skills

- **Programming Languages:** Python, C++, Java, MATLAB
- **Machine Learning and Deep Learning:** TensorFlow, PyTorch, Scikit-learn, Keras, OpenCV, Hugging Face, SpaCy
- **Data Analysis and Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Plotly
- **Version Control:** Git, GitHub
- **Tools and Other Frameworks:** Jupyter Notebooks, Google Colab, LaTeX

Positions of Responsibility

Secretary, Design and Animation Club, IIT Kanpur   *(Mar 2024-Present)*
- Contributed to the execution of creative projects, including digital illustrations, 3D animations, and event designs, as a key member of the team
- Led workshops on **Blender 3D modeling**, **digital art**, and **animation techniques**.

Relevant Courses (2023 - Present)

Fundamentals of Computing (ESC111)	Linear Algebra (MTH113) and Differential Equations (MTH114)
Computational Methods for Engineers (ESC113)	Real Analysis (MTH111)

Extra-Curricular Activities

- Participated in the **Indian Film Festival** and secured the Runner-Up position in 50 Hours Design Challenge.